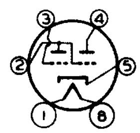
6E5

6E5

ELECTRON-RAY TUBE

INDICATOR TYPE WITH TRIODE UNIT

Heater	Coated Unipotential Cathode	
Voltage	6.3	a-c or d-c volts
Current	0.3	amp.
Overall Length		4" ± 3/16" ←
Seated Height		3-3/8" ± 3/16" ←
Maximum Diameter		1-3/16"
Bulb		T-9
Base		Small 6-Pin
Pin 1 - Heater		Pin 4 - Target
Pin 2 - Plate		Pin 5 - Cathode
Pin 3 - Grid		Pin 6 - Heater
Mounting Position	BOTTOM VIEW (6R)	Any* ←



Maximum and Minimum Ratings Are Design-Center Values

INDICATOR SERVICE

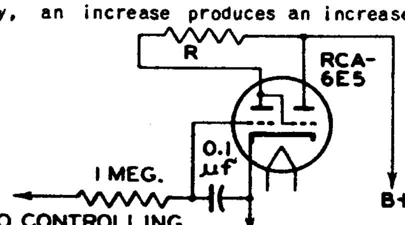
Plate-Supply Voltage		250 max.	volts
Target Voltage		250 max.	volts ←
		125 min.	volts
D-C Heater-Cathode Potential		90 max.	volts
Typical Operation: ←			
Plate and Target Supply	125	250	volts
Series Triode-Plate Resistor**	1	1	megohm
Target Current*** †	0.8	2	ma.
Triode-Plate Current***	0.1	0.2	ma.
Triode-Grid Voltage (Approx.):			
For shadow angle of 0°	-4.0	-7.5	volts
For shadow angle of 90°	0	0	volts

* The plane of the ray-control electrode passes through pins No. 2 and No. 5.

** Designated as R in circuit diagram. † Subject to wide variations.

*** For zero triode-grid voltage. ← Indicates a change.

The 6E5 is a high-vacuum type of tube designed to indicate visually the effect of change in the controlling voltage. For different controlling voltages, the shaded pattern produced on the fluorescent target varies through an angle from 90° to approximately 0°. The extent of the shaded area is controlled by the voltage on the ray-control electrode which is an extension of the triode plate between cathode and target. The voltage on the ray-control electrode is determined by the voltage applied to the grid of the triode connected as a d-c amplifier as shown in the circuit. A decrease in triode-grid bias decreases the voltage on the ray-control electrode; conversely, an increase produces an increased voltage on the ray-control electrode. In the practical use of the 6E5 as a tuning indicator, controlling voltage applied to the triode-grid is obtained from a suitable point in the a.v.c. circuit.



 ← Indicates a change.

6E5

6E5

AVERAGE CONTROL CHARACTERISTICS

